

Kent County Medical Examiner



2019 Annual Report

Office of the Medical Examiner
700 Fuller N.E.
Grand Rapids, Michigan 49503

2018 Kent County Medical Examiner Annual Report

To the Kent County Board of Commissioners
and to the Citizens of Kent County:

I am pleased to present the Kent County Medical Examiner 2019 Annual Report. Our autopsy number stayed the same (358) from 2018. Our total referred cases for 2019 was 1,848. Two thirds of these (1,226) were accepted and 622 were declined. The declined cases were those natural deaths in which the attending physician was able to sign the death certificate. The percent of cases autopsied remains steady, at about 30%. Of the 358 autopsies, 11 were billed to other counties, primarily Ottawa County, who is willing to take the responsibility to pay for autopsies in which the incident occurred in their county. Unfortunately, most other counties refuse to make such reimbursement. The total expenditures for the medical examiner program for 2019 were \$1,534,596, an increase of just over \$18,000 from 2018. We have continued to have an active relationship with Gift of Life Michigan, referring tissue and eye donors and facilitating organ donation.

In 2019, we experienced better cooperation from local hospitals in providing blood and urine samples from patients who overdosed and died hours to days later in their institutions. We appreciate this extra effort made by our hospitals to maximize the accuracy of death certificates in drug related deaths. The most frequent manner of death investigated by our office is natural deaths, which in 2019, constituted 56% of our cases. Accidents comprised the next large group at 33.5%, while 7% of our cases were suicides and just over 2% were homicides. Our total number of accidental deaths decreased by 2 between 2018 and 2019. The most common type of accidental death was from a fall, the vast majority of which occurred in the elderly. Of the remaining accidental deaths, drug overdoses continued to be the most common followed by vehicular accidents. Overdose deaths continue to plague our society with narcotic analgesic deaths counting for nearly 60% while heroin comprised 18.3%, a 5% raise over 2018. Methadone deaths, at 3.7%, comprised less than half of the methadone deaths in 2018 at 7.9%. Vehicular deaths were roughly equally divided between the 41-44 age group, the 45-64 age group, and the greater than 65-year-old age group. Fortunately, in 2019 we had 12 fewer deaths, at 75, than we did in 2018.

Our medical examiner investigators have done a splendid job at death investigation as indicated by the very high scores on their performance metrics. Our office generated income by issuing 3,981 cremation permits in 2019. In addition, our office staff provided autopsy reports and medical examiner investigator reports for which there was a charge, and thus, income generated.

Our office continues to contribute to the well being of Kent County residents by vigorous and thorough death investigation and are grateful for the support that we have had to do this.

Respectively submitted,



Stephen D. Cohle, MD
Kent County Chief Medical Examiner

Office of the Kent County Medical Examiner

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Medical Examiner Personnel

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 Forensic Pathologist

David A. Start, MD
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 Forensic Pathologist

Roberto Anaya, Jr.
 Medical Examiner Investigator

Elizabeth L. Brown, D-ABMDI
 Medical Examiner Investigator

Christine L. Candia, BSN, RN
 Medical Examiner Investigator

Judy A. Chamberlain (resigned 08/19)
 Medical Examiner Investigator

Paul R. Davison, F-ABMDI
 Medical Examiner Investigator

Cynthia L. Debiak, RN
 Medical Examiner Investigator

Peter J. Noble
 Medical Examiner Investigator

Theodore E. Oostendorp
 Medical Examiner Investigator

Thomas A. Wodarek
 Medical Examiner Investigator

Daniel Hopkins
 Kent County Conveyance Specialist

Carmen D. Marrero-Perez
 Office Administrator and
 Child Death Review Coordinator

Sharon L. Smith
 Medical Examiner Support Staff

Board Certification

The American Board of Medicolegal Death Investigators (ABMDI) sets quality and process standards for death investigators. Medical examiners who pass the certification requirements of the ABMDI are designated as registered Diplomats (D-ABMDI). Medical examiners with continued time in investigation and who pass required tests are designated as certified Fellows (F-ABMDI).

Medical Examiner Program Expenditures, 2018 and 2019

	2018		2019	
	<u>Amount</u>	<u>Percentage</u>	<u>Amount</u>	<u>Percentage</u>
Medical examiner (compensation)	\$ 247,417	16.2%	\$ 257,324	16.7%
Autopsies	1,118,617	73.3%	1,131,838	73.3%
Body transport	88,752	5.8%	83,782	5.4%
Support services	10,665	.07%	10,652	0.7%
Administration	60,000	4.0%	60,000	3.9%
Total	\$1,525,451	100.0%	\$1,543,596	100.0%
 Average cost per case investigated	 \$1,210		 \$1,259	

Medical Examiner Reportable Deaths and Autopsy

The Michigan County Medical Examiners Law, P.A. 181 of 1953, as amended, and the Michigan Public Health Code, P.A. 368 of 1978, as amended, mandates that specific types of deaths (listed below, left) be referred to the medical examiner for investigation. Medical examiner investigation of a death may also be ordered by the county's prosecuting attorney, the Michigan Attorney General or, upon the filing of a petition, signed by six (6) electors of a county. Not all deaths referred to the medical examiner for investigation necessarily result in an autopsy; however, an autopsy is generally ordered in certain circumstances (listed below, right), to determine more accurately the cause and manner of death.

Types of Deaths Reportable to the Medical Examiner, P.A. 368 of 1978

1. Sudden deaths and unexpected deaths (all deaths occurring in operating room, in recovery room, anesthesia related, natural death but not expected, occupational related deaths, subdural hematoma, intracerebral hemorrhage, etc.)*
2. Accidental deaths (motor vehicle, burns, drowning, falls, broken bones, drug overdose, drug toxicity, subdural hematoma, recent or past trauma, etc.)
3. Violent deaths (homicide, gunshot, stabbing, suicide, subdural hematoma, etc.)*
4. Suspicious circumstances surrounding a death.*
5. Deaths occurring as a result of an abortion.
6. Upon written order of the prosecuting attorney or the attorney general or upon the filing of a petition signed by six (6) electors of a county.
7. Death of a prisoner in any county or city jail who dies while so imprisoned.
8. If a fetal death occurs without medical attendance at or after the delivery.

In terms of a physician attendance: for the purposes of the medical examiner program, we consider that an investigation is required when:

- A. The deceased was last seen by a physician more than **ten (10) days before his or her death, if the cause of death appears to be other than the illness or condition for which the deceased was being treated.
- B. The attending physician cannot accurately determine the cause of death.
- C. When the deceased has not received any medical attention during the ***48 hours prior to the hour of death unless the attending physician, if any, is able to accurately determine the cause of death.

* All trauma related deaths no matter when the trauma occurred.

** The ten (10) day requirement relates solely to physician attendance.

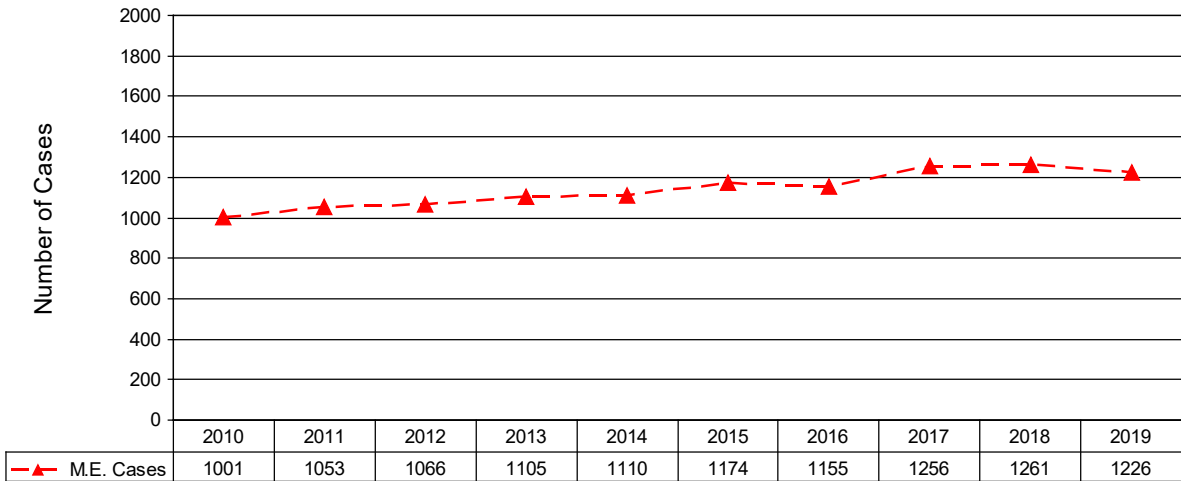
***The 48 hour requirement triggers an investigation when there has been no medical attendance of any kind (i.e., nursing care, etc.)

Types of Medical Examiner Cases for which Autopsy is Generally Ordered

1. Sudden deaths and unexpected deaths only when in the medical examiner's judgment, sufficient medical history is not available to determine cause and manner of death.
2. Accidental deaths such as motor vehicle, burns, drowning, etc. If an individual has been hospitalized for a length of time, it is the medical examiner's decision to order an autopsy.
3. Violent deaths such as homicide, suicide, gunshot, stabbing, etc.
4. Suspicious circumstances surrounding death, including unidentified bodies.
5. Death related to an abortion.
6. Sudden infant deaths (SIDS) and deaths of children 18 and under without significant medical history.
7. Death of a prisoner imprisoned at any county or city jail.
8. In a fetal death occurring without medical attendance at or after delivery.
9. An autopsy may be ordered at the discretion of the medical examiner if the cause of death appears to be other than the illness or condition for which the deceased was being treated, or if the attending physician cannot accurately determine the cause of death.
10. Anesthesia-related and unexpected deaths of patient in health care institutions.
11. Partial autopsies are not done because it is not best practice.
12. Views are performed in cases in which there is adequate history to explain the death, but there are external findings, such as injuries, that require direct examination to determine whether they may be significant injuries that mandate full autopsy.

2019 Medical Examiner Caseload

Figure 1: Accepted Kent County Medical Examiner Cases, 2010-2019

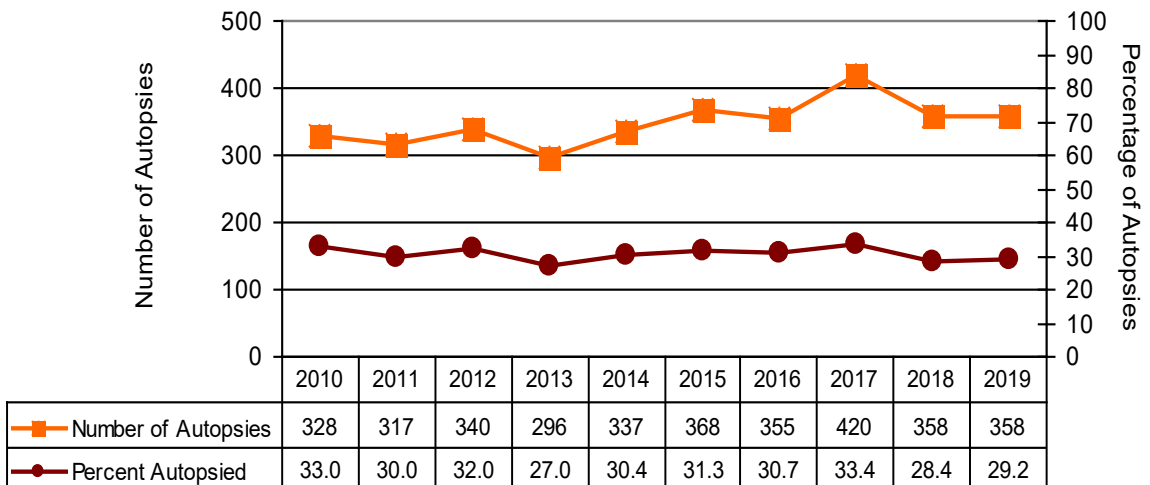


Total Referred Medical Examiner Cases in 2019: 1,848

Accepted	1,226	66.3%
Declined	622	33.7%

In 2019, there were 6,137 deaths in Kent County. The medical examiner was contacted regarding 1,848 of these deaths. 1,226 cases were accepted for investigation, while 622 were declined and did not fall within the requirements for investigation by the Medical Examiner’s Office. There were no exhumations in 2019. In 2019, there were 129 referrals to Gift of Life and Eversight resulting in 20 tissue donors and 12 eye donors.

Figure 2: Medical Examiner Cases with Autopsy, 2010-2019



Of the 358 autopsies performed, 347 were charged to Kent County. The remaining 11 autopsies were performed at the request of other counties. Toxicology was performed on 350 cases with 11 of those being views (97) and 5 where only toxicology was performed. There were no partial autopsies performed.

2019 Medical Examiner Caseload

Figure 3: Referred Medical Examiner Caseload by Month, 2015-2019

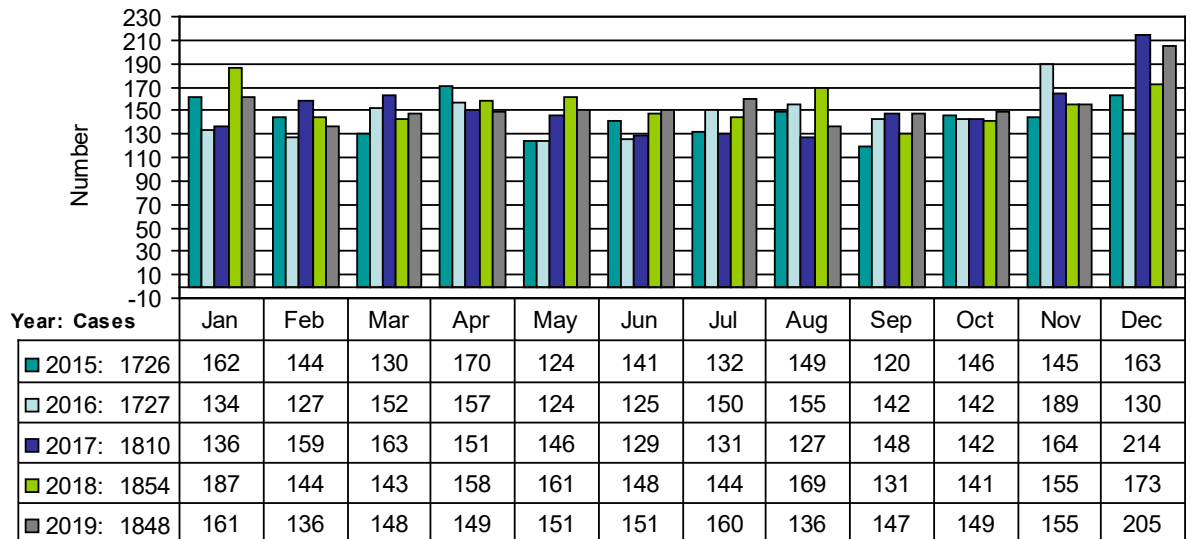
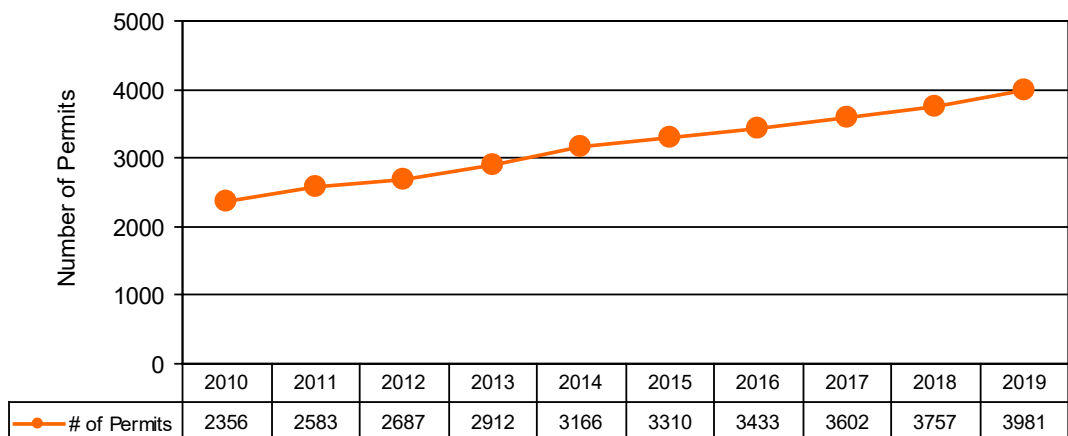


Figure 4: Cremation Permits Issued, 2010-2019



Demographics of Medical Examiner Cases

Figure 5: Medical Examiner Cases by Race/Ethnicity, 2015-2019

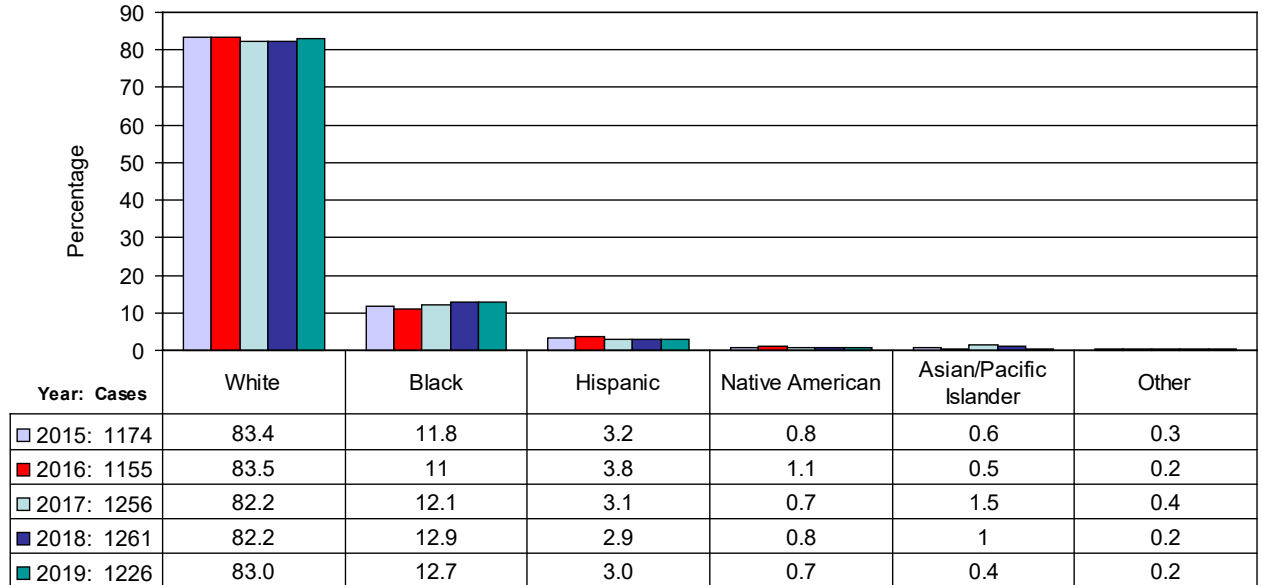


Figure 6: Medical Examiner Cases by Age at Death, 2015-2019

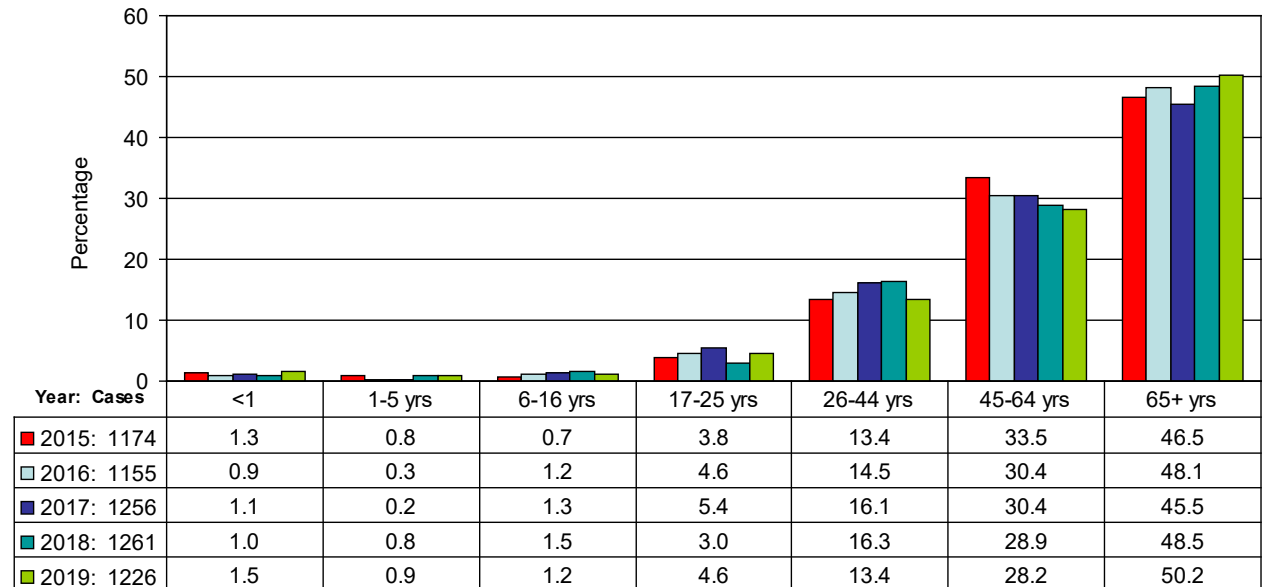


Table 1: Medical Examiner Cases by Gender, 2015-2019

	2015	2016	2017	2018	2019
Female	37.3%	39.8%	37.9%	39.1%	36.4% (446 cases)
Male	62.7%	60.2%	62.1%	60.9%	63.5% (779 cases)
Unknown					0.1% (1 fetus)

Manner of Death

Figure 7: Medical Examiner Cases by Manner of Death, 2010-2019

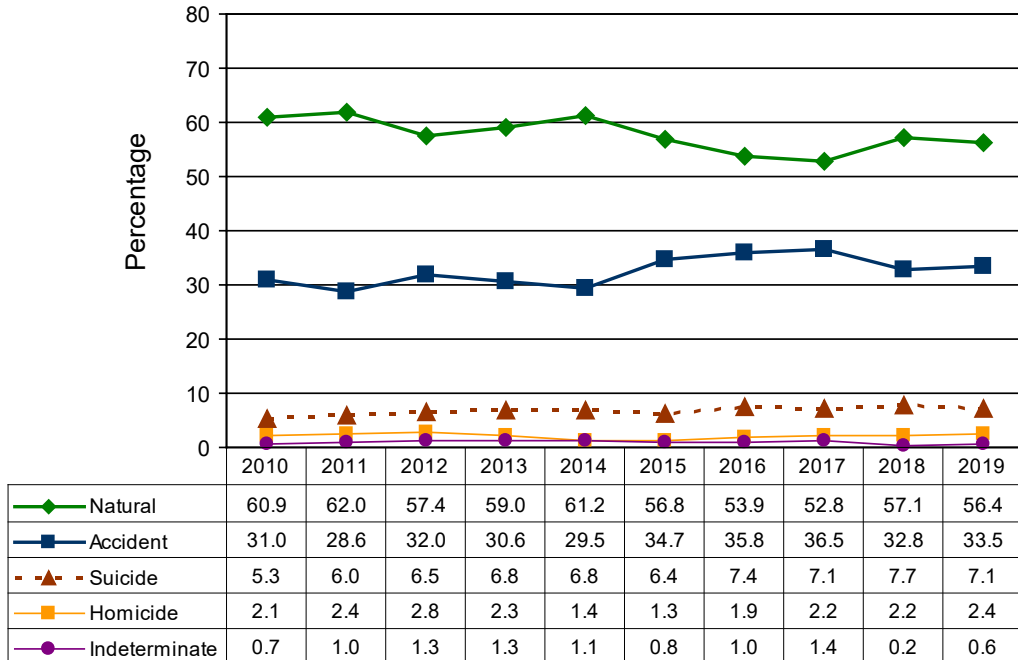
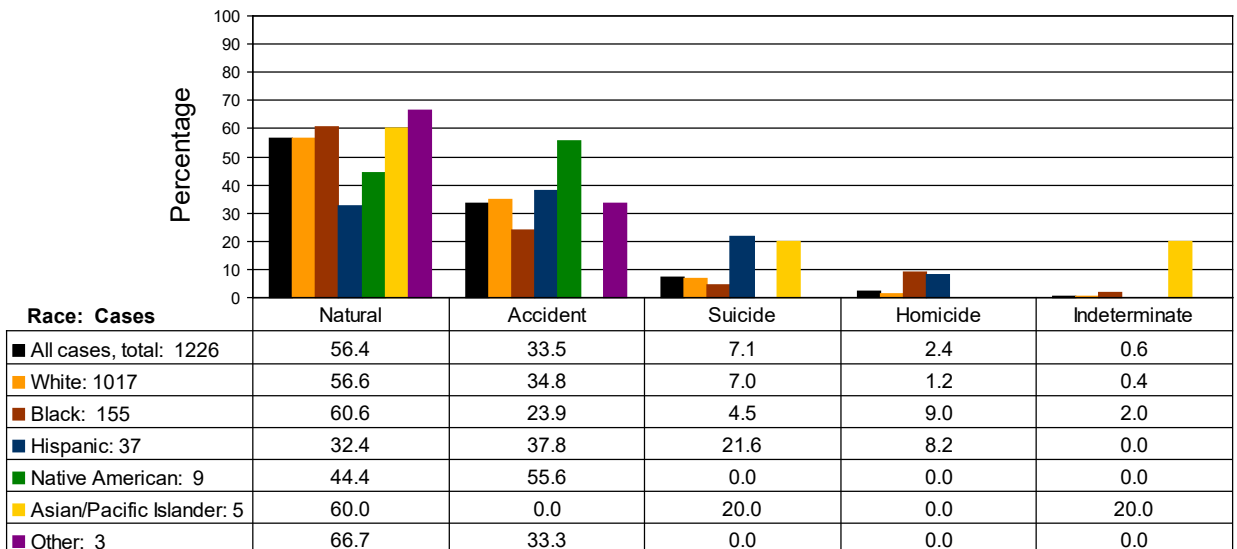


Figure 8: Manner of Death by Race/Ethnicity, 2019



Manner of Death

Figure 9: Kent County Homicides by Gender, 2015-2019

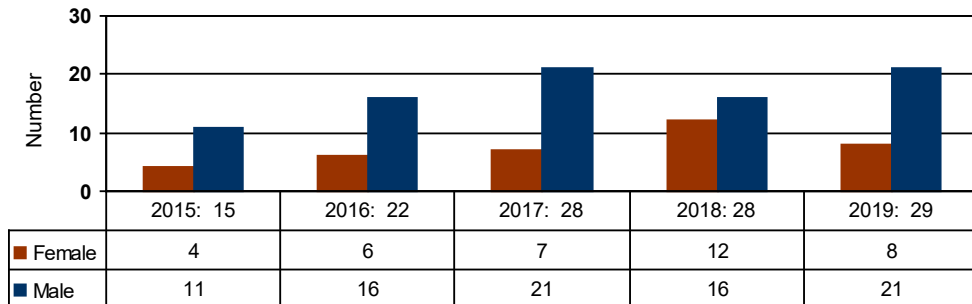


Figure 10: Kent County Homicides, Three-Year Moving Averages, 2007-2019

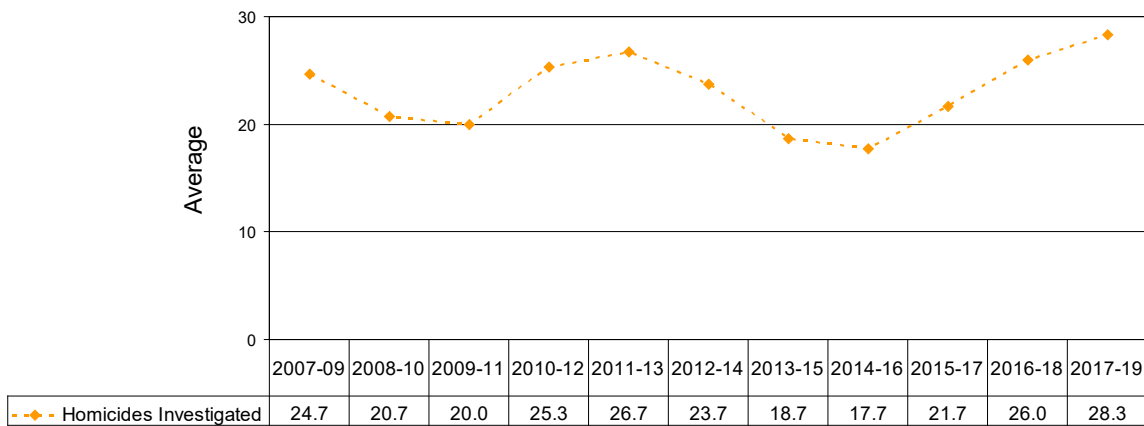


Figure 11: Homicides by Race, 2015-2019

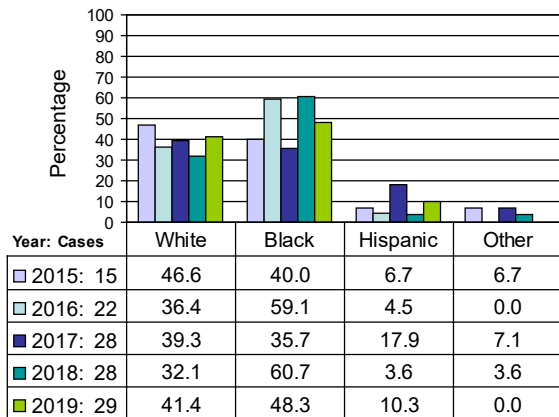
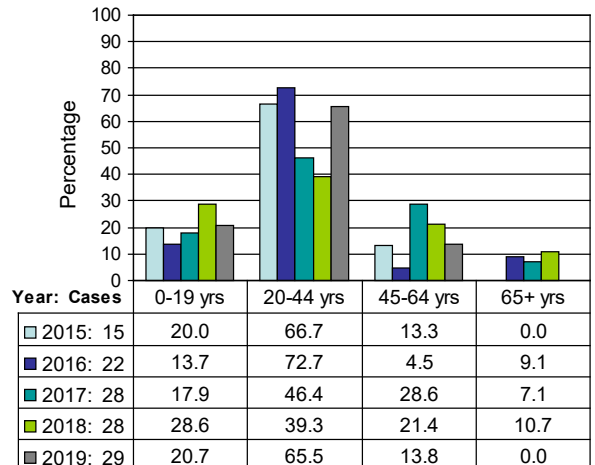


Figure 12: Homicides by Age, 2015-2019



Manner of Death

Figure 13: Homicide Cases by Method Used, 2015-2019

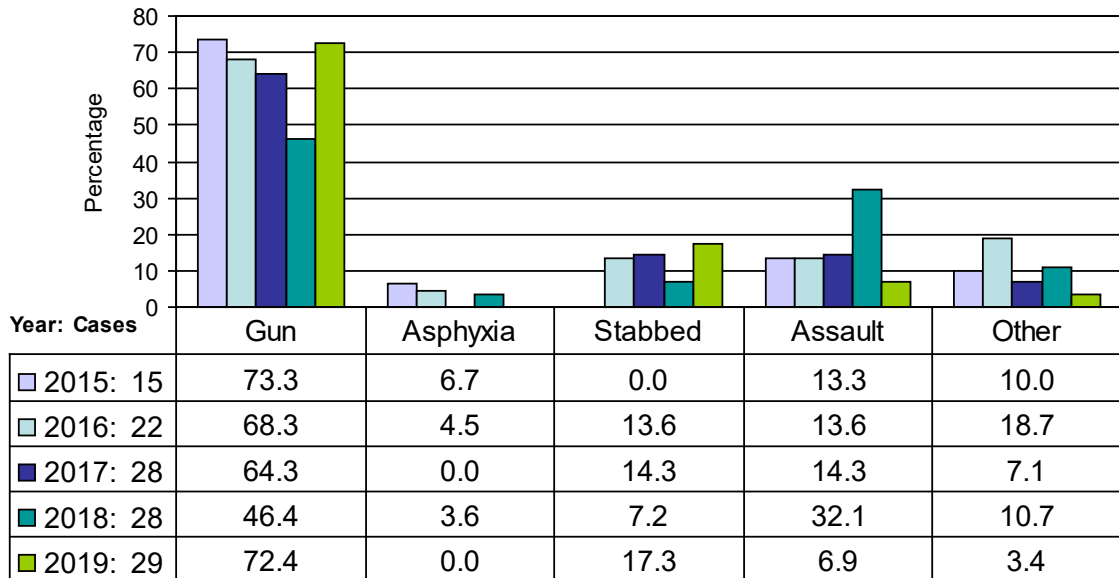


Table 2: Gun Homicides by Age, 2015-2019

Year: Cases	AGE			
	0-19 yrs	20-29 yrs	30-39 yrs	40+ yrs
2015: 11	1	3	5	2
2016: 15	1	8	3	3
2017: 18	2	9	1	6
2018: 13	2	5	0	6
2019: 21	5	10	3	3

Table 3: Suicide Cases by Race, 2015-2019

	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Native American</u>	<u>Asian</u>
2015: 76	85.5%	7.9%	5.3%	0.0%	1.3%
2016: 86	83.7%	7.0%	3.5%	3.5%	2.3%
2017: 89	87.7%	2.2%	4.5%	2.2%	3.4%
2018: 97	83.5%	8.2%	6.2%	0.0%	2.1%
2019: 87	81.6%	8.1%	9.2%	0.0%	1.1%

Manner of Death

Figure 14: Suicide Cases by Age, 2015-2019

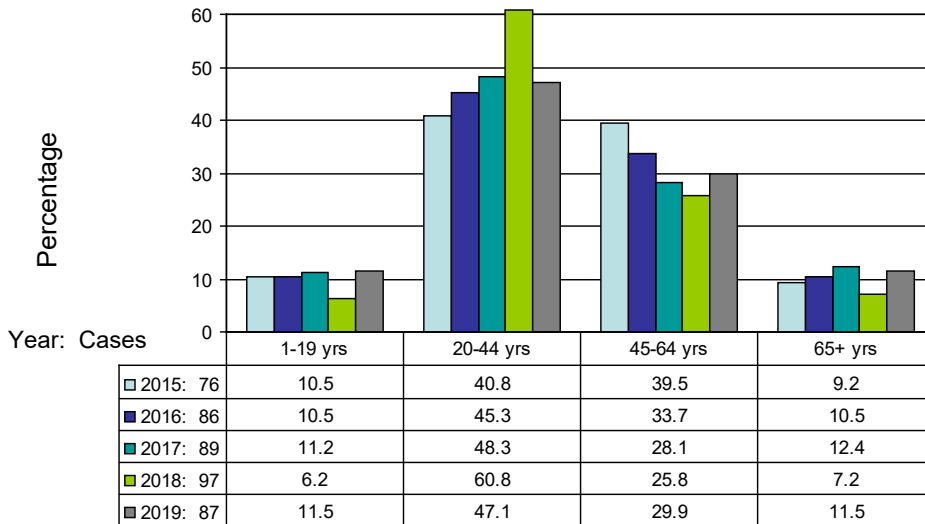
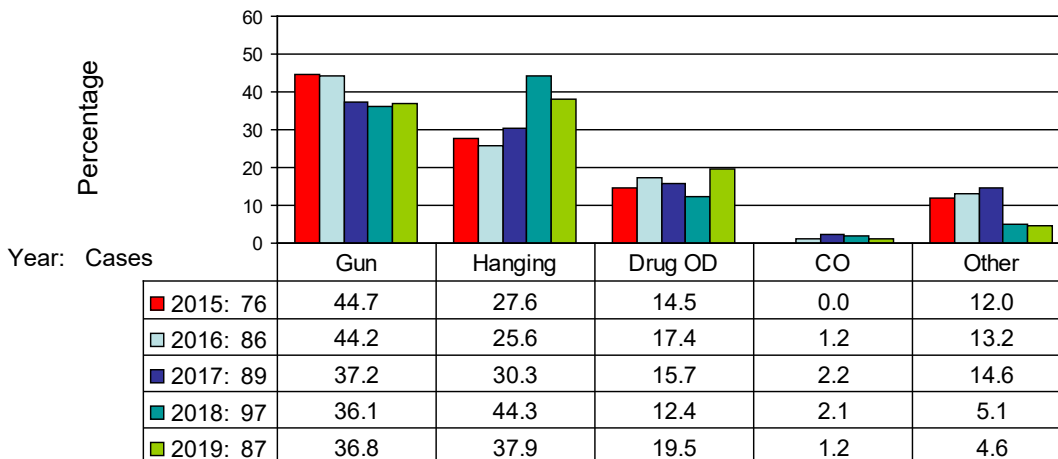


Figure 15: Suicide Cases by Method Used, 2015-2019

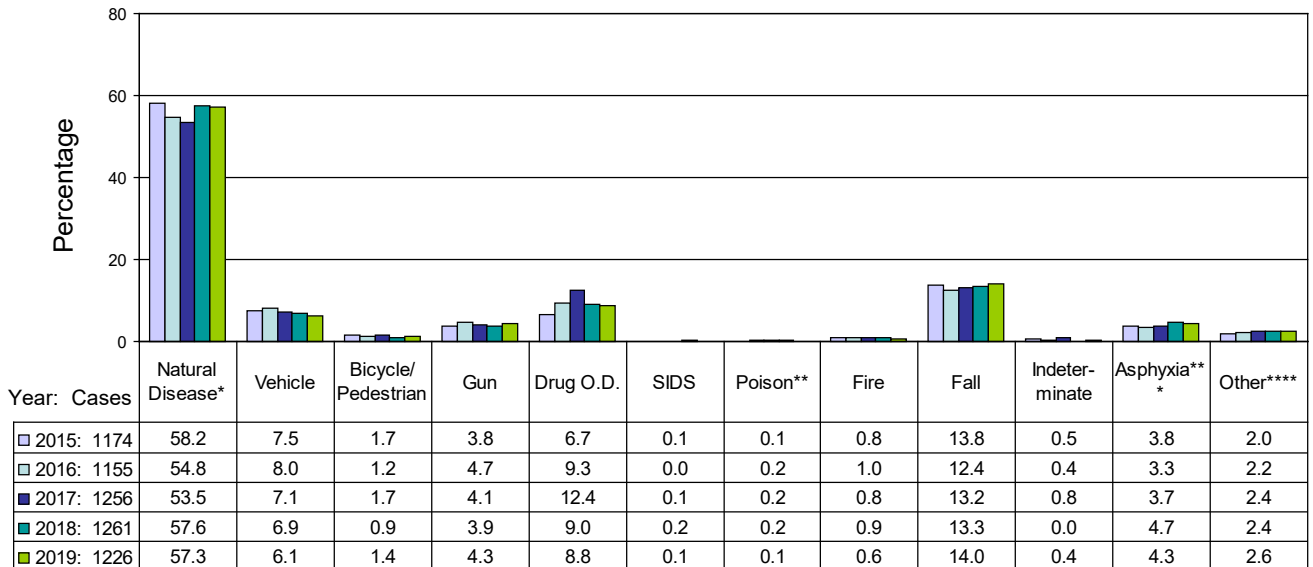


In 2019, CO is carbon monoxide poisoning, while Other consists of suffocation (1), drowning (1), incised wounds (1), and jumped from vehicle (1).

Of the 87 suicide deaths for 2019, females accounted for 21 (24.1%) deaths, while males accounted for 66 (75.9%).

Cause of Death

Figure 16: Medical Examiner Cases by Cause of Death, 2015-2019



*Natural: alcohol (47), cancer (32), cardiovascular (515), CNS (24), respiratory (40) and other (46).

**Poison includes carbon monoxide poisoning (1).

***Asphyxia includes deaths from hanging (33), choking on food (7), suffocation with bedding, (4), co-sleeping (6), positional asphyxia (1), and suffocation, plastic bag (1).

****Other includes deaths from assault (2), drowning (8), stabbed (5), hypothermia (3), incised wounds (1); hit by object (3), idiopathic pharyngeal hematoma (1), septic shock (1), electrocution (1), medical procedures (4). Medication reaction (1), and skiing accident (1).

Figure 17: Drug Deaths by Age, 2015-2019

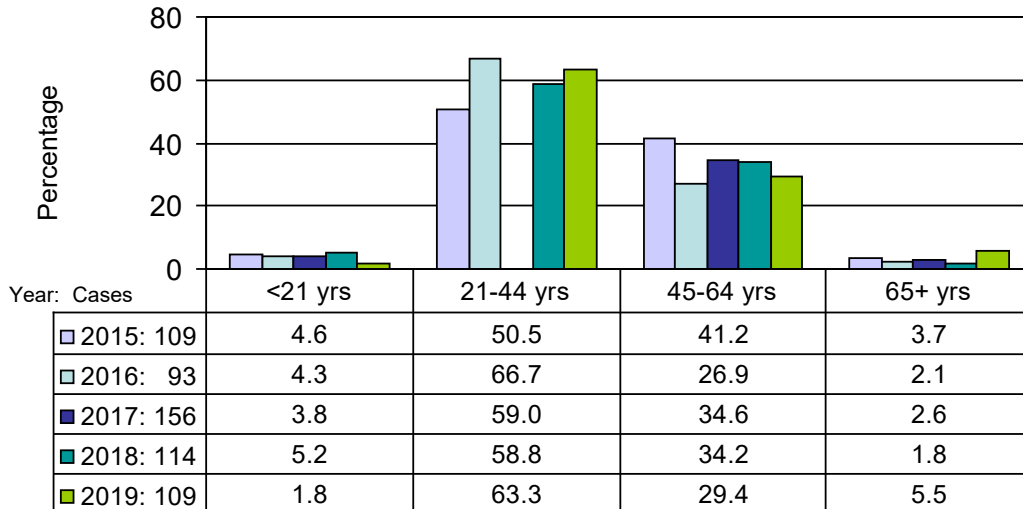


Table 4: Drug Deaths by Gender, 2019

	Female (34)	Male (75)
Accident	23	69
Suicide	11	6

Cause of Death

Figure 18: Drug Deaths by Drug of First Mention, 2015-2019

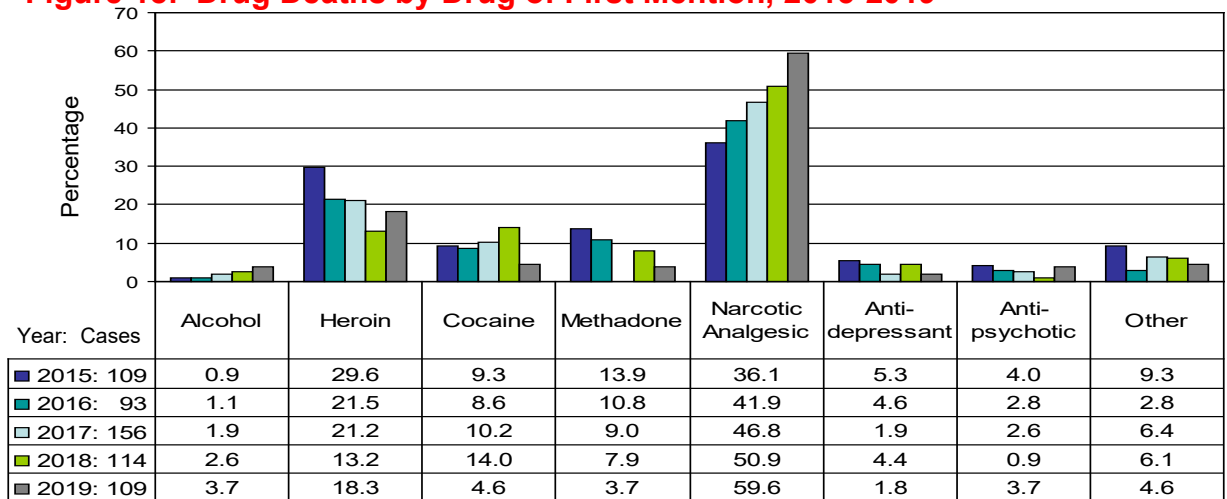


Figure 19: Vehicular Deaths by Age, 2015-2019

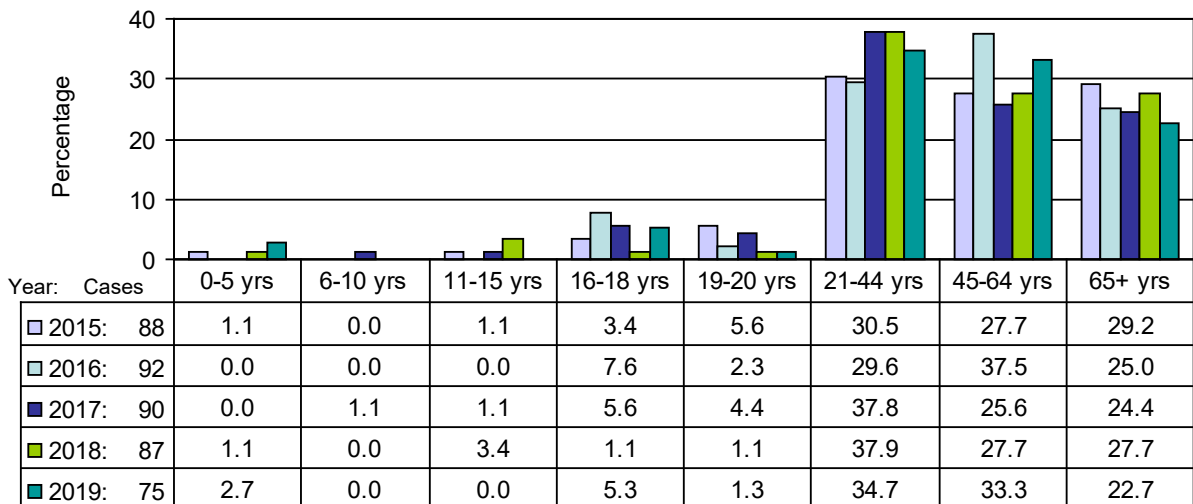


Table 5: Vehicular Deaths by Gender, 2015-2019

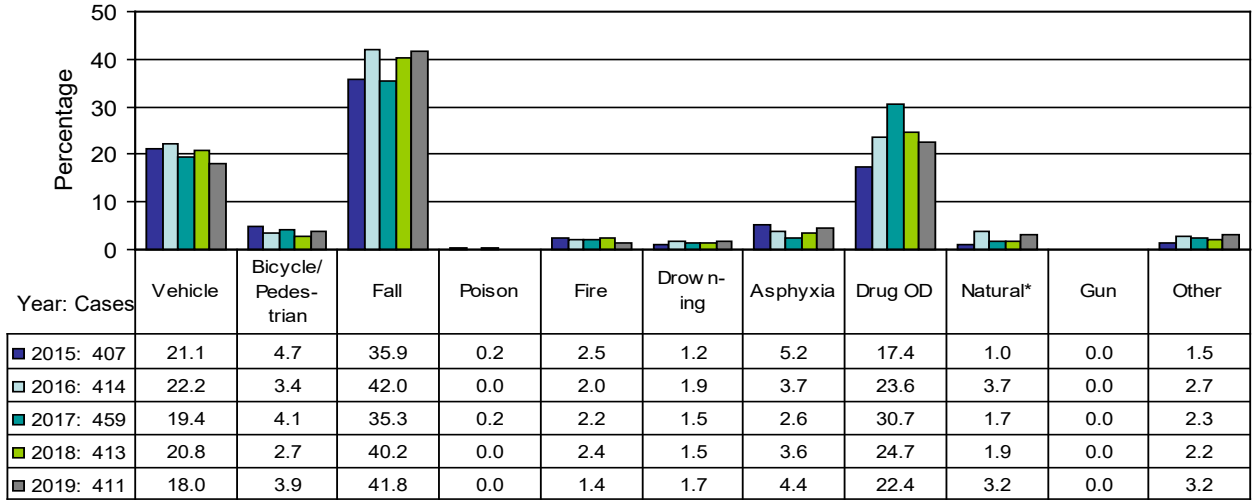
	Female	Male
2015: 88	26.1% (23)	73.9% (65)
2016: 92	40.2% (37)	59.8% (55)
2017: 90	30.0% (27)	70.0% (63)
2018: 87	37.9% (33)	62.1% (54)
2019: 75	34.7% (26)	65.3% (49)

Table 6: Bicycle/Pedestrian Deaths by Age, 2015-2019

	<21 yrs	21-44 yrs	45-64 yrs	65+ yrs
2015: 20	3	4	10	3
2016: 14	2	6	4	2
2017: 21	3	8	5	5
2018: 11	3	3	3	2
2019: 17	3	3	8	3

Cause of Death

Figure 20: Accidental Deaths by Cause, 2015-2019



*A natural cause of death can have a contributing factor that determines the death to be accidental. There were 13 deaths that fell into this category in 2019 from falls (5), drug overdoses (4), incised wounds (1), and alcohol (3).

Figure 21: Accidental Deaths by Age, 2015-2019

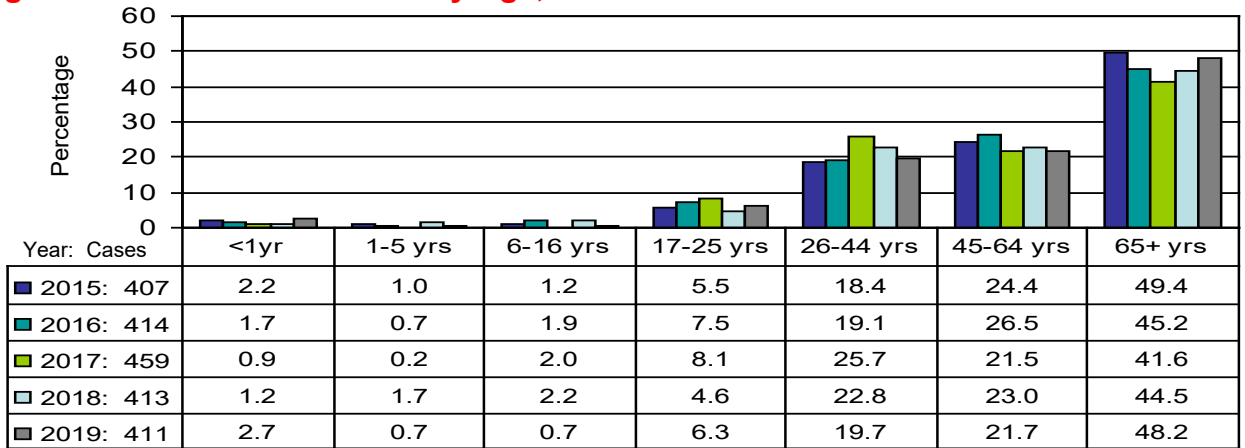
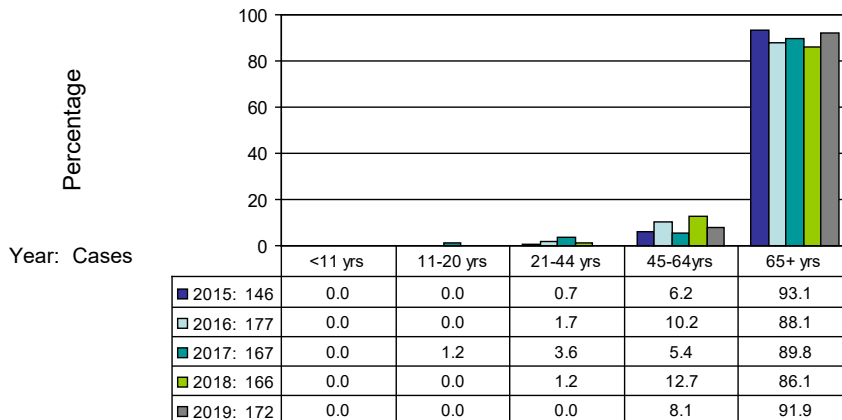


Figure 22: Deaths Resulting from Falls by Age, 2015-2019



MISCELLANEOUS

Unclaimed Bodies 2015-2019

The Medical Examiner's Office handles all indigent burials in Kent County even if they do not fall under the medical examiner's jurisdiction with the assistance of the Michigan Department of Human Services. In 2019, the office processed 41 unclaimed bodies.

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Medical Examiner Cases	18	9	15	13	20
Not Medical Examiner Cases	18	18	22	17	21
Total Cases	36	27	37	30	41*

*Of the 41 cases, 3 had assesses that were handled by the Public Administrator.

Deceased are considered unclaimed when they absolutely have no legal next of kin, and others fall under this category when family members either can not afford the expense of a burial/cremation or just do not want anything to do with the funeral arrangements.

Child Death Cases Reviewed 2015-2019

The Child Death Review Team reviews the deaths of those in Kent County who are 17 and younger. In 2019, there were 23 child death cases reviewed.

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Natural	3	3	1	0	1
SIDS	1	0	0	4	0
Vehicular Accident	2	2	5	3	2
Accidental	11	9	6	5	9
Suicide	4	3	4	4	4
Homicides	1	4	2	5	5
Indeterminate	2	0	2	0	2
Total Cases	24	21	20	21	23

Accidental includes death by suffocation (2), drowning (1), co-sleeping (5), and head caught in gate rails (1).

Suicide includes death by gun (2) and hanging (2).

Homicide includes death by gun (4), and craniocerebral trauma – shaken baby (1).

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